

## WHAT IS CLAIMED IS:

1. A method for use in a mobile communications system where a mobile station communicates packet data over a radio interface with a radio base station system coupled to a packet node, comprising the mobile station sending a first message to the packet node requesting a packet communication including a packet flow having a requested quality of service and a mobile station capability, the method characterized by:
  - following the first message, the packet node sending a second message to the base station system including the mobile station capability, and
  - the base station system using the mobile station capability in evaluating whether the requested quality of service can be supported for the packet flow.
2. The method in claim 1, further comprising:
  - the base station system creating a packet flow context for the packet flow using the mobile capability.
3. The method in claim 2, further comprising:
  - the base station system creating the packet flow context for the packet flow considering a condition of a cell area in which the mobile station is located.
4. The method in claim 3, further comprising:
  - allocating radio resources for the packet flow based on the cell condition and the mobile station capability.
5. The method in claim 4, further comprising:
  - detecting a change in radio resources;
  - sending a message to change the quality of service for the packet flow; and
  - using the mobile station capability in determining whether to change the quality of service for the packet flow.
6. The method in claim 1, wherein the mobile capabilities include one or more of the following: one or more types of radio access technology supported by the mobile station, a power capability supported by the mobile station, a time slot class supported by

the mobile station, and a type of mobile packet radio service supported by the mobile station.

7. The method in claim 1, wherein the packet node is part of a General Packet Radio Services (GPRS) network and is a Serving GPRS Support Node (SGSN) and the  
5 Base Station System (BSS) is part of a Global System for Mobile communications (GSM) network.

8. The method in claim 7, wherein the first message is an Activate Packet Data Protocol (PDP) Context Request message and the second message is a Create Base Station System (BSS) Packet Flow Context message sent from the SGSN to the BSS.

10 9. The method in claim 7, wherein the mobile station capabilities include one or more of the following: one or more types of radio access technology supported by the mobile station, a power capability supported by the mobile station, a time slot class supported by the mobile station, a type of mobile packet radio service supported by the mobile station including whether the mobile supports an enhanced GPRS capability or a  
15 GPRS capability, a multi-slot class type supported by the mobile station, an extended dynamic allocation capability supported by the mobile station, a multi-slot sub-class capability supported by the mobile station, and a GSM EDGE Radio Access Network (GERAN) feature package 1 including functionality for Extended Uplink Temporary Block Flow (TBF) Mode and Network-Assisted Cell Change supported by the mobile  
20 station.

10. The method in claim 7, wherein the first message is a routing area update message.

11. The method in claim 7, wherein the method is initiated by the BSS requesting a download of a Packet Flow Context (PFC) Create message.

25 12. The method in claim 1, wherein the method is initiated by the packet node sending a message to the mobile station requesting a packet communication.

13. The method in claim 7, wherein the method is initiated by a Gateway GPRS Support Node (GGSN) establishing a packet connection with the mobile station.

14. A mobile communications system, comprising a radio access network including a control node (4), a packet node (7) coupled to the control node (4), and a  
5 mobile station (2) configured to communicate over a radio interface with the radio access network, the mobile station (2) being configured to send a first message to the packet node (7) via the radio access network requesting a packet communication including a packet flow having a requested quality of service and a mobile station capability, characterized by:  
the packet node (7) being configured to send a second message to the control node  
10 (4), following the first message, the second message including the mobile station capability;  
and

the control node (4) being configured to use the mobile station capability in evaluating whether the requested quality of service can be supported for the packet flow.

15. The mobile communications system in claim 14, wherein the control node is  
15 configured to create a packet flow context for the packet flow using the mobile capability.

16. The mobile communications system in claim 15, wherein the control node is configured to create the packet flow context for the packet flow considering a condition of a cell area in which the mobile station is located.

17. The mobile communications system in claim 16, wherein the control node is  
20 configured to allocate radio resources for the packet flow based on the cell condition and the mobile station capability.

18. The mobile communications system in claim 17, wherein the control node is configured to detect a change in radio resources, send a message to change the quality of service for the packet flow, and use the mobile capability in determining whether to change  
25 the quality of service for the packet flow.

19. The mobile communications system in claim 14, wherein the mobile capabilities include one or more of the following: one or more types of access technology

supported by the mobile station, a power capability supported by the mobile station, a time slot class supported by the mobile station, and a type of mobile packet radio service supported by the mobile station.

20. The mobile communications system in claim 14, wherein the packet node is  
5 part of a General Packet Radio Services (GPRS) network (51) and is a Serving GPRS Support Node (SGSN) (50) and the control node is a radio Base Station Controller (BSC) (34) in a Base Station System (BSS).

21. The mobile communications system in claim 20, wherein the first message is  
10 an Activate Packet Data Protocol (PDP) Context Request message and the second message is a Create Base Station System (BSS) Packet Flow Context message sent from the SGSN to the BSS.

22. The mobile communications system in claim 20, wherein the mobile station  
capabilities include one or more of the following: one or more types of access technology supported by the mobile station, a power capability supported by the mobile station, a time  
15 slot class supported by the mobile station, a type of mobile packet radio service supported by the mobile station including whether the mobile supports an enhanced GPRS capability or a GPRS capability, a multi-slot class type supported by the mobile station, an extended dynamic allocation capability supported by the mobile station, a multi-slot sub-class capability supported by the mobile station, and a GSM EDGE Radio Access Network  
20 (GERAN) feature package 1 including functionality for Extended Uplink Temporary Block Flow (TBF) Mode and Network-Assisted Cell Change supported by the mobile station.

23. The mobile communications system in claim 14, wherein the first message is a routing area update message.

24. The mobile communications system in claim 14, wherein the first message is  
25 a Download BSS Packet Flow Context (PFC) message sent by the BSS.

25. The mobile communications system in claim 14, wherein the first message is a Request PDP context activation sent by the Serving GPRS Support Node (SGSN).

26. The mobile communications system in claim 14, wherein the packet node configured to send a message to the mobile station via the radio access network requesting  
5 a packet communication.

27. Apparatus for use in a mobile communications system where a mobile station (2) communicates packet data over a radio interface with a radio access network (RAN), comprising a RAN node (4) and a packet node (7) coupled to the RAN node (4) having information about a mobile station capability, characterized by:  
10 the packet node (7) being configured to send a message to the RAN node (4) including the mobile station capability, and  
the RAN node (4) being configured to use the mobile station capability in evaluating whether a quality of service can be supported for a packet flow associated with the mobile station (2).

15 28. The apparatus in claim 27, wherein the packet node is part of a General Packet Radio Services (GPRS) network (51) and is a Serving GPRS Support Node (SGSN) (50) and the control node is a radio Base Station Controller (BSC) (34) in a Base Station System (BSS).

20 29. The apparatus in claim 28, wherein the SGSN is configured to receive an Activate Packet Data Protocol (PDP) Context Request that includes the mobile station capability and the message is a Create Base Station System (BSS) Packet Flow Context message sent from the SGSN to the BSS.

25 30. The apparatus in claim 28, wherein the mobile station capabilities include one or more of the following: one or more types of access technology supported by the mobile station, a power capability supported by the mobile station, a time slot class supported by the mobile station, a type of mobile packet radio service supported by the mobile station including whether the mobile supports an enhanced GPRS capability or a GPRS capability, a multi-slot class type supported by the mobile station, an extended

dynamic allocation capability supported by the mobile station, a multi-slot sub-class capability supported by the mobile station, and a GSM EDGE Radio Access Network (GERAN) feature package 1 including functionality for Extended Uplink Temporary Block Flow (TBF) Mode and Network-Assisted Cell Change supported by the mobile  
5 station.